
8. Moose

Program Name: Moose.java

Input File: moose.dat

Hermit Joe lives in a desolate area of Alaska. The Alaskan Wildlife Management team has given him several maps of the area surrounding his cabin that show the location of the homes of different types of animals. The map is a 10x10 rectangular grid of the area and the characters on the map represent different animals that live in the area. For example, the letter E represents an eagle's nest, the letter B represents a brown bear den, the letter M represents a moose habitat, etc. Being an avid naturalist, Joe is especially interested in filming moose in their natural habitat for a documentary he is making. He needs you to write a program for him that will find the largest moose habitat on a given map. The largest moose habitat is the area of the map with the most horizontally and vertically contiguous moose characters. The size of the moose habitat is the number of moose characters that form the moose habitat.

Input

The first line of input will contain a single integer n that indicates the number of maps to be checked. Each map will contain ten lines (rows) with ten characters (columns) and no spaces on each row. All characters in the map will be either an uppercase letter of the alphabet that represents an animal's home, or a period (.) that represents an area without a major animal home.

Output

For each map, you will print the size of the largest moose habitat.

Example Input File

```
1
M...E..MMM
...B....MM
EMMCC.BBMM
EB.MMFFBMM
MMMM..B..M
MMM.B..FMM
MMMMFFFMMM
CC.BM..MMM
BECMM...FJ
..CMMFF.B.
```

Example Output to Screen

```
18
```